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10/538,891	06/14/2005	Raymond Seltzer	HC/1-22816/A/CGC 5156 2135/PCT	
324 JoAnn Villamia	7590 01/30/2008	EXAMINER		
	on/Patent Department	DEES, NIKKI H		
540 White Plains Road P.O. Box 2005			ART UNIT	PAPER NUMBER
Tarrytown, NY		1794		
			MAIL DATE	DELIVERY MODE
•			01/30/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

		Ameliantian N				
		Application No		applicant(s)		
Office Action Summary		10/538,891	s	SELTZER ET AL.		
		Examiner	A	art Unit		
		Nikki H. Dees		794		
Period fo	The MAILING DATE of this communication apor Reply	ppears on the cove	er sheet with the cor	respondence address		
WHI0 - External after af	IORTENED STATUTORY PERIOD FOR REP CHEVER IS LONGER, FROM THE MAILING Insions of time may be available under the provisions of 37 CFR 1 rSIX (6) MONTHS from the mailing date of this communication. Depriod for reply is specified above, the maximum statutory perioure to reply within the set or extended period for reply will, by staturely received by the Office later than three months after the mailined patent term adjustment. See 37 CFR 1.704(b).	DATE OF THIS C 1.136(a). In no event, how and will apply and will expire ute, cause the application	OMMUNICATION. wever, may a reply be timely e SIX (6) MONTHS from the to become ABANDONED (filed mailing date of this communication. 35 U.S.C. § 133).		
Status	•					
1)⊠	Responsive to communication(s) filed on 14	<i>June 2005</i> .				
2a) <u></u> ☐	This action is FINAL . 2b)⊠ Th	nis action is non-fir	nal.			
3)□	3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is					
	closed in accordance with the practice under	Ex parte Quayle,	1935 C.D. 11, 453	O.G. 213.		
Disposit	ion of Claims					
5) 6) 7)	Claim(s) <u>1-20</u> is/are pending in the application 4a) Of the above claim(s) is/are withdred Claim(s) is/are allowed. Claim(s) is/are rejected. Claim(s) is/are objected to. Claim(s) <u>1-20</u> are subject to restriction and/or	rawn from conside				
Applicat	ion Papers					
9)[The specification is objected to by the Examin	ner.				
10)	The drawing(s) filed on is/are: a) ac	•	•			
	Applicant may not request that any objection to the					
11)	Replacement drawing sheet(s) including the correct The oath or declaration is objected to by the I					
Priority	under 35 U.S.C. § 119					
a)	Acknowledgment is made of a claim for foreign All b) Some * c) None of: 1. Certified copies of the priority docume 2. Certified copies of the priority docume 3. Copies of the certified copies of the priority application from the International Bure See the attached detailed Office action for a list	ints have been rec ints have been rec iority documents he eau (PCT Rule 17.	ceived. ceived in Application nave been received 2(a)).	No in this National Stage		
Attachmer	nt(s) ce of References Cited (PTO-892)	4) [Interview Summary (P	TO-413)		
2) Notice 3) Info	ce of Naterences Orted (170-032) ce of Draftsperson's Patent Drawing Review (PTO-948) rmation Disclosure Statement(s) (PTO/SB/08) er No(s)/Mail Date	·/ <u>-</u>	Paper No(s)/Mail Date. Notice of Informal Pate	· ·		

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DETAILED ACTION

Election/Restrictions

1. This application contains claims directed to more than one species of the generic invention. These species are deemed to lack unity of invention because they are not so linked as to form a single general inventive concept under PCT Rule 13.1.

The species are as follows:

I) 3-arylbenzofuranones of the formula

II) a long-chain N,N-dialkylhydroxylamine of the formula

III) a substituted hydroxylamine of the formula

$$T_1$$
 T_2
NOT₃
 T_2
Or

IV) a nitrone of the formula

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or V) an amine oxide of the formula



If species (I) is elected, applicant must further select n=1 or n=2.

Following the selection of n=1 or n=2, Applicants must further select a single moiety, or related moieties, for each of the R substitutions as required for the selected compound. The groups as defined below offer guidance as to what the Examiner considers related moieties. The additional groups M, X, n, p, q, r, and s, if necessary for the selected compound, may stand as laid out in claim 1.

If species (II) is elected, T_1 and T_2 may stand as independently straight or branched chain alkyls of 6 to 36 carbon atoms.

If species (III) is elected, the T groups must be limited as set forth below:

 T_1 must be selected as one of the following groups:

Group I: straight or branched chain alkyl of 1-36 carbon atoms;

Group II: cycloalkyl of 5-12 carbon atoms;

Group III: aralkyl of 7-9 carbon atoms;

Group IV: aralkyl of 7-9 carbon atoms substituted by 1 or 2 alkyl groups of 1-12 carbon atoms;

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Group V: aralkyl of 7-9 carbon atoms substituted by 1 or 2 halogen atoms.

 T_2 must be selected as one of the following groups:

Group I: H;

Group II: the same as T_1 .

T₃ must be selected as one of the following groups:

Group I: allyl;

Group II: straight or branched chain alkyl of 1-36 carbon atoms;

Group III: cycloalkyl of 5-18 carbon atoms;

Group IV: cycloalkenyl of 5-18 carbon atoms;

Group V: straight or branched chain alkyl of 1-4 carbon atoms substituted by phenyl;

Group VI: straight or branched chain alkyl of 1-4 carbon atoms substituted by phenyl substituted by one or two alkyl groups of 1-4 carbon atoms;

Group VII: straight or branched chain alkyl of 1-4 carbon atoms substituted by phenyl substituted by one or two alkyl halogen atoms.

If species (IV) is elected, the L groups must be limited as set forth below:

L₁ must be selected as one of the following groups:

Group I: straight or branched chain alkyl of 1-36 carbon atoms;

Group II: cycloalkyl of 5-12 carbon atoms;

Group III: aralkyl of 7-9 carbon atoms;

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Group IV: aralkyl of 7-9 carbon atoms substituted by 1 or 2 alkyl groups of 1-12 carbon atoms;

Group V: aralkyl of 7-9 carbon atoms substituted by 1 or 2 halogen atoms.

L₂ and L₃ must each be selected as one of the following groups:

Group I: H;

Group II: straight or branched chain alkyl of 1-36 carbon atoms;

Group III: cycloalkyl of 5-12 carbon atoms;

Group IV: aralkyl of 7-9 carbon atoms;

Group V: aralkyl of 7-9 carbon atoms substituted by 1 or 2 alkyl groups of 1-12 carbon atoms;

Group VI: aralkyl of 7-9 carbon atoms substituted by 1 or 2 halogen atoms;

Group VII: L_1 and L_2 taken together to form a 5 or 6 membered ring including N.

If species (V) is elected, the G groups must be limited as set forth below:

G₁ and G₂ must each be selected as one of the following groups:

Group I: straight or branched chain alkyl of 6 to 36 carbon atoms;

Group II: aryl of 6-12 carbon atoms;

Group III: cycloalkyl of 5-36 carbon atoms;

Group IV: alkcycloalkyl of 6-36 carbon atoms;

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Group V: cycloalkylalkyl of 6-36 carbon atoms.

G₃ must be selected as one of the following groups:

Group I: straight or branched chain alkyl of 1 to 36 carbon atoms;

Group II: aryl of 6-12 carbon atoms;

Group III: aralkyl of 7-36 carbon atoms;

Group IV: cycloalkyl of 5-36 carbon atoms;

Group V: alkcycloalkyl of 6-36 carbon atoms;

Group VI: cycloalkylalkyl of 6-36 carbon atoms.

Substitution for any one of the aryl groups must be selected as one of the following group:

Group I: 1 to 3 halogen atoms;

Group II: alkyl of 1-8 carbon atoms

Group III: alkoxy of 1 to 8 carbon atoms.

If any alkyl, aralkyl, alkaryl, cycloalkyl, alkcycloalkyl and cycloalkylalkyl group selected is to be interrupted, a single interrupting group must be selected from those given in Claim 1. The exact number of interruptions, from 1 to 16, must be specified.

Further, if any alkyl, aralkyl, alkaryl, cycloalkyl, alkcycloalkyl and cycloalkylalkyl group selected, a single substitution group must be selected from those given in claim 1.

If the following substituents are present in the interrupting or substitution group, the must be selected as one of the given choices. Art Unit: 1794

 G_4 , if present in the interrupting or substituting group, may stand as H or an alkyl of 1-9 carbon atoms.

R_x, if present in the interrupting or substituting group, may stand as H or methyl.

L must be selected as one of the following groups:

Group I: H or hydroxyl;

Group II: straight or branched chain alkyl;

Group III: -C(O)R moiety where R is a C_{1-30} straight or branched chain alkyl;

Group IV: -OR_v moiety.

If group IV (-OR_y moiety) is selected, R_y must be selected as one of the following groups:

Group I: C₁₋₃₀ straight or branched chain alkyl;

Group II: C₂-C₃₀ alkenyl;

Group III: C2-C30 alkynyl;

Group IV: C₅-C₁₂ cycloalkyl;

Group V: C₆-C₁₀ bicycloalkyl;

Group VI: C₅-C₈ cycloalkenyl;

Group VII: C₆-C₁₀ aryl;

Group VIII: C₇-C₉ aralkyl;

Group IX: C₇-C₉ aralkyl substituted by alkyl or aryl;

Group X: C_7 - C_9 aralkyl substituted by -CO(D).

If group X is selected, D must be selected as one of the following groups:

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Group I: C₁₋₁₈ alkyl;

Group II: C₁₋₁₈ alkoxy;

Group III: phenyl;

Group IV: phenyl substituted by hydroxyl, alkyl or alkoxy;

Group V: amino;

Group VI: amino mono- or di-substituted by alkyl or phenyl.

Applicant is required, in reply to this action, to elect a single species to which the claims shall be restricted if no generic claim is finally held to be allowable. The reply must also identify the claims readable on the elected species, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered non-responsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

2. The claims are deemed to correspond to the species listed above in the following manner:

Claims 2-4 correspond to species (I). Claims 5-7 correspond to species (II). Claim 8 corresponds to species (III). Claim 9 corresponds to species (IV). Claims 10-13 correspond to species (V).

The following claim(s) are generic: claims 1 and 14-20.

3. The species listed above do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, the species lack the same or corresponding special technical features for the following reasons: the claims are to multiple inventions including the use of 3-arylbenzofuranones as antioxidants in food compositions, the use of N,N-dialkylamines as antioxidants in food compositions, the use of substituted hydroxylamines in food compositions, the use of nitrones in food compositions, and the use of amine oxides in food compositions.

Applicant is advised that the reply to this requirement to be complete must include (i) an election of a species or invention to be examined even though the requirement may be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention.

The election of an invention or species may be made with or without traverse. To preserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse.

4. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nikki H. Dees whose telephone number is (571) 270-3435. The examiner can normally be reached on Monday-Friday 7:30-5:00 EST (first Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney can be reached on (571) 272-1284. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

> Nikki H. Dees Examiner Art Unit 1794